

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

December 10, 2009

MR DAVID FUELLEMAN  
PLANT MANAGER  
BUILDING MATERIALS CORPORATION OF AMERICA  
2600 SINGLETON BLVD  
DALLAS TX 75212-3738

Standard Permit Registration Number:	91414	Renewal Date:	December 10, 2019
Location:	2600 Singleton Blvd		
City/County:	Dallas, Dallas County		
Project Description/Unit:	GAF Materials		
Regulated Entity Number:	RN100788959		
Customer Reference Number:	CN602717464		
New or Existing Site:	Existing		
Affected Permit (if applicable):	7711A		
Standard Permit Type:	Pollution Control Project		

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TCEQ  
CENTRAL FILE ROOM

Building Materials Corporation of America has registered the emissions associated with the installation of two baghouses at the GAF Materials facility under the standard permit listed above as authorized by the Commissioners pursuant to Title 30 Texas Administrative Code § 116.602 (30 TAC § 116.602). Emissions are listed on the attached table. This Standard Permit should be incorporated into NSR Permit No. 7711A at next amendment or renewal. For rule information see:  
<http://www.tceq.state.tx.us/permitting/air/nav/standard.html>.

You are reminded that 30 TAC § 116.615 requires that any construction or change authorized by this standard permit should be consolidated into the affected facilities' permit(s) at the next amendment or renewal.

Planned MSS emissions for startup and shutdown have been reviewed. These authorized MSS emissions are included on the emissions table. No other planned MSS emissions will be authorized under this registration.

As of July 1, 2008, all analytical data generated by a mobile or stationary laboratory in support of compliance with air permits must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory under the Texas Laboratory Accreditation Program or meet one of several exemptions. Specific information concerning which laboratories must be accredited and which are exempt may be found in 30 TAC § 25.4 and § 25.6.

For additional information regarding the laboratory accreditation program and a list of accredited laboratories and their fields of accreditation, please see the following Web site:  
[http://www.tceq.state.tx.us/compliance/compliance\\_support/qa/env\\_lab\\_accreditation.html](http://www.tceq.state.tx.us/compliance/compliance_support/qa/env_lab_accreditation.html)

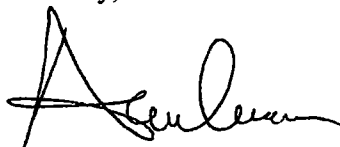
For questions regarding the accreditation program, you may contact the Texas Laboratory Accreditation Program at (512) 239-3754 or by email at [labprgms@tceq.state.tx.us](mailto:labprgms@tceq.state.tx.us).

Mr. David Fuelleman  
Page 2  
December 10, 2009

Re: Standard Permit Registration Number 91414

The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements. If you have questions, please contact Mr. Emmanuel Ukandu, P.E., at (713) 767-3699. This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

A handwritten signature in black ink, appearing to read 'Anne M. Inman', with a stylized, flowing script.

Anne M. Inman, P.E., Manager  
Rule Registrations Section  
Air Permits Division  
Texas Commission on Environmental Quality

cc: Section Manager, Air Pollution Control Program, City of Dallas Environmental and Health Services,  
Dallas  
Air Section Manager, Region 4 - Fort Worth

Project Number: 152625

Standard Permit Maximum Emission Rates Table  
Permit Number 91414

The facilities and emissions included in this table have been represented and reviewed as the maximum emissions authorized by this standard permit registration.

MAXIMUM EMISSION RATES TABLE															
EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NO <sub>x</sub>		CO		PM <sub>10</sub>		PM <sub>2.5</sub>		SO <sub>2</sub>		Other	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
NST1								0.07	0.31	0.07	0.31				
NST2								0.07	0.31	0.07	0.31				
MSS								0.14	0.62	0.14	0.62				
TOTAL EMISSIONS (TPY):								0.28	1.24	0.28	1.24				
MAXIMUM OPERATING SCHEDULE:		Hours/Day		Days/Week		Weeks/Year		Hours/Year		8760					

VOC - volatile organic compounds  
 NO<sub>x</sub> - total oxides of nitrogen  
 CO - carbon monoxide  
 PM<sub>10</sub> - particulate matter equal to or less than 10 microns in size  
 PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in size  
 SO<sub>2</sub> - sulfur dioxide

\*\*Fugitive emissions are an estimate only and should not be considered as a maximum allowable

# **TECHNICAL REVIEW: STANDARD PERMIT FOR POLLUTION CONTROL PROJECTS**

<b>Permit No.:</b>	91414	<b>Company Name:</b>	Building Materials Corporation of America	<b>APD Reviewer:</b>	Mr. Emmanuel Ukandu, P.E.
<b>Project No.:</b>	152625	<b>Site/Area Name:</b>	GAF Materials	<b>SP No.:</b>	6001

Silos is conveyed into a stabilizer heater. Air emissions from the stabilizer heater are routed to a dust collector (EPN 27). Currently, after heating, the stabilizer is conveyed to a mixer where it is mixed with blown coating asphalt. With this project, GAF proposes to enclose the stabilizer carrying operations in a use bin and control the air emissions with two (2) new baghouses (EPNs NST1 and NST2) prior to transferring the heated stabilizer to the mixer.

Emissions of PM10 and PM2.5 from the proposed new baghouses were determined based on both the maximum exhaust flow rate in actual cubic feet per minute (acfm), and an outlet grain loading of 0.01 grains per standard cubic feet (gr/scf). The company conservatively assumed that emissions of PM10 and PM2.5 are equal to emissions of PM. The proposed installation of the two baghouses will result in an increase in PM10 and PM2.5 emissions solely on the basis of the installation of the new baghouse and the flowrate associated with the baghouses. This project will not result in an increase in production capacity or any upstream or downstream emissions at the plant. The following is the state of PM emissions following the installation of the two baghouses:

Pollutant:(tpy)	Before:	After:	Difference:
PM10	0.013	0.62	0.607
PM 2.5	0.002	0.62	0.618

## **TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES**



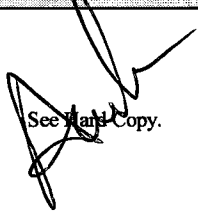
The company claimed the Pollution Control Project Standard Permit for the installation of the baghouses. Company submitted the documents and checklist to show compliance with The General Requirements of 30 TAC §§ 116.110 and 116.601-615, and the specific requirements of the PCP Standard Permit Rules. Without consideration of any other increases or decreases, the project will result in an insignificant net increase in emissions of PM10 and PM2.5. The potential increase in PM10 and PM2.5 associated with this project were solely from the installation of the baghouses, the calculation methodologies for fugitives and the increased flow rates for the new baghouses. However, actual emissions of PM10 and PM2.5 will result from the installation of the two baghouses. There are no Maintenance emissions associated with this project. During maintenance activities at the plant, the stabilizer transfer operations will be shutdown so that no emissions will be released from any of the proposed baghouses. MSS emissions will only come from startup and shutdown operations, and will be the same as normal operations. Company provided documentation which was reviewed for compliance with 106.610, 106.611, 106.614, 106.615, and 106.617 requirements.

## **COMMUNICATION LOG**

Date	Time	Name/Company	Subject of Communication
12/08/2009	9.50 am	Latha Kambham, Ph.D/Trinity Consultants	Requested a "Before" and "After" emissions rate.
12/08/2009	11.00 am	Same	Client sent requested information by e-mail.

## **ESTIMATED EMISSIONS**

EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NOx		CO		PM <sub>10</sub>		PM <sub>2.5</sub>		SO <sub>2</sub>		Other	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
NST1								0.07	0.31	0.07	0.31				
NST2								0.07	0.31	0.07	0.31				
MSS								0.14	0.62	0.14	0.62				
<b>TOTAL EMISSIONS (TPY):</b>								0.28	1.24	0.28	1.24				
<b>MAXIMUM OPERATING SCHEDULE:</b>		<b>Hours/Day</b>		<b>Days/Week</b>		<b>Weeks/Year</b>		<b>Hours/Year</b>		8760					

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
<b>SIGNATURE:</b>			 See Hard Copy.
<b>PRINTED NAME:</b>	Mr. Emmanuel O. Ukandu	Jon Edwards, P.E.	
<b>DATE:</b>	December 9, 2009	December 10, 2009	

BASIS OF PROJECT POINTS	POINTS
Base Points:	1.50
Project Complexity Description and Points: <21 days: 0.75	0.75
Technical Reviewer Project Points Assessment:	2.25
Final Reviewer Project Points Confirmation:	

## TECHNICAL REVIEW: STANDARD PERMIT FOR POLLUTION CONTROL PROJECTS

<b>Permit No.:</b>	91414	<b>Company Name:</b>	Building Materials Corporation of America	<b>APD Reviewer:</b>	Mr. Emmanuel Ukandu, P.E.
<b>Project No.:</b>	152625	<b>Site/Area Name:</b>	GAF Materials	<b>SP No.:</b>	6001

GENERAL INFORMATION					
<b>Regulated Entity No.:</b>	RN100788959	<b>Project Type:</b>	Standard Permit Application		
<b>Customer Reference No.:</b>	CN602717464	<b>Date Received by TCEQ:</b>	November 19, 2009		
<b>Account No.:</b>	DB-0378-S	<b>Date Received by Reviewer:</b>	November 20, 2009		
<b>City/County:</b>	Dallas, Dallas County	<b>Physical Location:</b>	2600 Singleton Blvd.		

CONTACT INFORMATION					
<b>Responsible Official/ Primary Contact Name and Title:</b>	Mr. David Fuelleman Plant Manager	<b>Phone No.:</b>	(214) 637-1060	<b>Email:</b>	
		<b>Fax No.:</b>	(214) 637-5202		
<b>Technical Contact/ Consultant Name and Title:</b>	Mr. Doug Harris	<b>Phone No.:</b>	214/637-8909	<b>Email:</b>	DHARRIS@GAF.COM
		<b>Fax No.:</b>	214/637-5202		

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there associated authorizations at the site?	X		If YES, list all PBRs and standard permit numbers: 81652, 7711A
Is the application for renewal of an existing standard permit?		X	If YES, list expiration date:
Will any New Source Review permit be directly affected by this project?		X	If YES, list the NSR Permit No. 7711A
Do NSPS, NESHAP, or MACT standards apply to this registration?		X	If YES, list Subparts:
Is the following documentation included with this registration? 1. The General Requirements Checklist demonstrating compliance with 30 TAC §§ 116.110 and 116.601-615 2. Process description 3. Project description 4. Descriptions of any equipment being installed 5. Emissions calculations including the basis of the calculations 6. Emission increases and/or decreases associated with this project (quantified) 7. Description of efforts to minimize any collateral emissions or collateral increases	X		If NO, note any requests for additional information and date received:
Are any requirements of § 116.110 circumvented by: (1) artificially limiting feed or production rates below the maximum capacity of the project's equipment; (2) claiming a limited chemical list; or (3) dividing and registering a project in separate segments?		X	If YES, are the limits intended to allow the project to move forward while waiting for a permit or permit amendment that will allow full-scale operations, particularly when the project would not be economically feasible until fully authorized?

STANDARD PERMIT RULES CHECK	YES	NO	COMMENTS
Will the project include replacement of existing pollution control equipment and/or techniques?		X	If YES, is the new control technique at least as effective?
Will an increase in production capacity result from the installation of control equipment or the implementation of a control technique?		X	
Does the project include installing a new production facility, reconstructing an existing production facility [as defined in 40 CFR § 60.15(b)(1) and (c)], or completely replacing an existing production facility?		X	
Without consideration of any other increases or decreases, will the project result in a significant net increase in emissions of any criteria pollutant?	X		Does the net increase trigger PSD, nonattainment, or netting review? YES _____ NO <u>X</u> _____ Document in technical summary below.
Are predictable maintenance, startup, and shutdown emissions directly associated with the pollution control project included in this project?	X		If NO, how are previous MSS emission authorized or permitted. Give permit nos. and emissions?

DESCRIBE OVERALL PROCESS AT THE SITE
Building Materials Corporation of America doing business as GAF Materials Corporation owns and operates an existing asphalt roofing facility located in Dallas, Dallas County authorized under NSR Permit No. 7711A. GAF is a nationwide manufacturer of building material products. The GAF Dallas Plant manufactures asphalt shingles for the roofing industry. There are two asphalt roofing lines at the GAF Dallas Plant: Line 1 and Line 3.

DESCRIBE PROJECT AND INVOLVED PROCESS
Company submitted a Pollution Control Project Standard Permit to authorize the installation of two (2) baghouses to control the PM emissions from the Line 3 filler (stabilizer) transfer operations with proposed EPNs NST1 and NST2. Emissions of PM10/PM2.5 are the only emissions expected as a result of the proposed project. With this project, the company proposes changes to the stabilizer transfer operations in Line 3 by adding two baghouses. Stabilizer is received in bulk by truck or railcar and is unloaded into storage silos. Air emissions from the stabilizer storage silos are vented to two dust collectors (EPNs 26A and 26B). The ducting from the two stabilizer storage silos is interconnected. Therefore, both dust collectors control emissions from both stabilizer storage silos. Stabilizer in the stabilizer storage

**12/10/2009 -----NSR IMS - PROJECT RECORD -----**

PROJECT#: 152625      PERMIT#: 91414      STATUS: PENDING      DISP CODE: C  
RECEIVED: 11/19/2009      PROJTYPE: INITIAL      AUTHTYPE: STDPMT      ISSUED DT: 12/10/09  
RENEWAL: 12/10/19  
PROJECT ADMIN NAME: INSTALLATION OF NEW BAGHOUSES  
PROJECT TECH NAME: GAF MATERIALS

**Assigned Team: RULE REG SECTION**

**STAFF ASSIGNED TO PROJECT:**

HUNSBERGER, JOANNA      - REVIEWR1\_2 -      AP INITIAL REVIEW  
UKANDU, EMMANUEL      - REVIEW ENG -      RR TEAM

2.25  
Jue

**CUSTOMER INFORMATION (OWNER/OPERATOR DATA)**

ISSUED TO: BUILDING MATERIALS CORPORATION OF AMERICA  
COMPANY NAME: Building Materials Corporation of America  
CUSTOMER REFERENCE NUMBER: CN602717464

**REGULATED ENTITY/SITE INFORMATION**

REGULATED ENTITY NUMBER: RN100788959      ACCOUNT: DB0378S  
SITE NAME: GAF MATERIALS

REGULATED ENTITY LOCATION: 2600 Singleton Blvd  
REGION 04 - DFW METROPLEX      NEAR CITY: DALLAS      COUNTY: DALLAS

**CONTACT DATA**

CONTACT NAME: MR DAVID FUELLEMAN      CONTACT ROLE: RESPONSIBLE OFFICIAL  
JOB TITLE: PLANT MANAGER      ORGANIZATION: BUILDING MATERIALS CORPORATION OF AMERICA  
MAILING ADDRESS: 2600 SINGLETON BLVD, DALLAS, TX, 75212-3738  
PHONE: (214) 637-1060 Ext: 0  
FAX: (214) 637-5202 Ext: 0  
EMAIL: DFUELLERMAN@GAF.COM

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CONTACT NAME: MR DOUG HARRIS      CONTACT ROLE: TECHNICAL CONTACT  
JOB TITLE: ENGINEERING MANAGER      ORGANIZATION: BUILDING MATERIALS CORPORATION OF AMERICA  
MAILING ADDRESS: 2600 SINGLETON BLVD, DALLAS, TX, 75212-3738  
PHONE: (214) 637-8909 Ext: 0  
FAX: (214) 637-5202 Ext: 0  
EMAIL: DHARRIS@GAF.COM

**PROJECT NOTES:**

12/09/2009 SHOULD BE INCORPORATED INTO NSR PERMIT NO. 7711A

**PERMIT NOTES:****FEE:**

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
587805		900.00		CHECK

**TRACKING ELEMENTS:**

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	11/19/2009	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	11/20/2009	
PROJECT RECEIVED BY ENGINEER (DATE)	11/20/2009	
ENGINEER INITIAL REVIEW COMPLETED (DATE)	11/25/2009	
DEFICIENCY CYCLE	12/08/2009	12/08/2009
PEER / MANAGER REVIEW PERIOD	12/09/2009	12/10/2009

**UNIT TYPES:**Project Unit Type:**PROJECT RULES:**

Rule Desc	Request Type	On Application	Approve
6001 POLLUTION CONTROL PROJECTS -	ADD	Y	APPROVE

**PERMIT RULES:**

Rule Desc	Start Date	End Date
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**PROJECT ATTRIBUTES:**

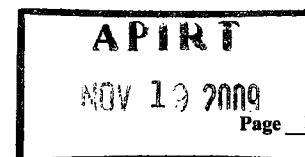
Attributes	Value
MSS- 101.222(H)(1)	



**Texas Commission on Environmental Quality  
Registration for Air Standard Permit  
Form PI-1S**

<b>I. REGISTRANT INFORMATION</b>			
A. Is a TCEQ Core Data Form (TCEQ Form No. 10400) attached? Core Data Form required for Standard Permits 6004, 6006, 6007, 6008, and 6013. <i>If "NO," please indicate the following.</i>			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Customer Reference No.: <b>CN602717464</b>		Regulated Entity No.: <b>RN100788959</b>	
B. Company or Other Legal Customer Name ( <i>must be same as Core Data "Customer"</i> ): <b>Building Materials Corporation of America</b>			
Company Official Contact Name: <b>David Fuelleman</b>			Title: <b>Plant Manager</b>
Mailing Address: <b>2600 Singleton Blvd.</b>			
City: <b>Dallas</b>		State: <b>Texas</b>	Zip Code: <b>75212</b>
Phone No.: <b>214-637-1060</b>	Fax No.: <b>214-637-5202</b>	E-mail: <b>dfuelleman@gaf.com</b>	
C. Technical Contact Name: <b>Doug Harris</b>			Title: <b>Engineering Manager</b>
Company: <b>Building Materials Corporation of America</b>			
Mailing Address: <b>2600 Singleton Blvd.</b>			
City: <b>Dallas</b>		State: <b>Texas</b>	Zip Code: <b>75212</b>
Phone No.: <b>214-637-8909</b>	Fax No.: <b>214-637-5202</b>	E-mail: <b>dharris@gaf.com</b>	
D. Facility Location Information (Street Address): <b>2600 Singleton Blvd</b>			
If no street address, provide written driving directions to the site: ( <i>Attach description if additional space is needed.</i> )			
City: <b>Dallas</b>		County: <b>Dallas</b>	Zip Code: <b>75212</b>
<b>II. FACILITY AND SITE INFORMATION</b>			
A. Name and Type of Facility: <b>2600 Singleton Blvd.</b>			<input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Portable
B. Type of Action	<input checked="" type="checkbox"/> Initial Application	<input type="checkbox"/> Change to Registration	Registration No.:
	<input type="checkbox"/> Renewal	Expiration Date:	
C. Standard Permit Claimed: <b>6001</b>		Description: <b>Pollution Control Project</b>	
D. Concrete Batch Plant Standard Permit ( <i>Check one</i> )	<input type="checkbox"/> Central Mix <input type="checkbox"/> Ready Mix <input type="checkbox"/> Specialty Mix <input type="checkbox"/> Enhanced Controls for Concrete Batch Plants		
E. Proposed start of construction: <b>12/18/2009</b>		Length of time at the Site:	

Pg 152625

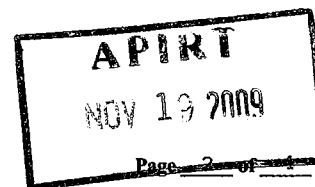






**Texas Commission on Environmental Quality**  
**Registration for Air Standard Permit**  
**Form PI-1S**

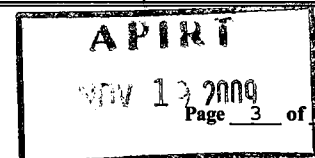
<b>II. FACILITY AND SITE INFORMATION (continued)</b>		
F. Is there a previous Standard Exemption or Permit by Rule for the facilities in this registration? <i>(Attach details regarding changes)</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If "YES," list Permit No.:
G. Are there any other facilities at this site which are authorized by an air Standard Permit?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If "YES," list Permit No.: <b>81652</b>
H. Are there any other air preconstruction permits at this site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If "YES," list Permit No.: <b>7711A</b>
Are there any other air preconstruction permits at this site that would be directly associated with this project?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If "YES," list Permit No.:
I. TCEQ Account Identification Number <i>(if known)</i> : DB-0378-S		
J. Is this facility located at a site which is required to obtain a federal operating permit pursuant to 30 TAC Chapter 122?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> To be determined	
K. Identify the requirements of 30 TAC Chapter 122 that will be triggered if this Form PI-1S application is approved. <input type="checkbox"/> Application for an FOP <input type="checkbox"/> FOP Significant Revision <input type="checkbox"/> FOP Minor <input checked="" type="checkbox"/> Operational Flexibility/Off-Permit Notification <input type="checkbox"/> Streamlined Revision for GOP <input type="checkbox"/> To be determined <input type="checkbox"/> None		
L. Identify the type(s) issued and/or FOP application(s) submitted/pending for the site. (check all that apply) <input checked="" type="checkbox"/> SOP <input type="checkbox"/> GOP <input type="checkbox"/> GOP application/revision application: submitted or under APD review <input checked="" type="checkbox"/> SOP application <u>revision application</u> submitted or <u>under APD review</u> <input type="checkbox"/> N/A		
<b>III. FEE INFORMATION</b>		
Check/Money Order/Transaction No.: <b>00587805</b>		
Name on Check: <b>GAF Materials Corporation</b>		
Fee Amount: <b>\$900</b>		
<b>IV. PUBLIC NOTICE (If applicable)</b>		
A. Is the plant located at a site contiguous or adjacent to the public works project?		<input type="checkbox"/> YES <input type="checkbox"/> NO





**Texas Commission on Environmental Quality**  
**Registration for Air Standard Permit**  
**Form PI-1S**

<b>IV. PUBLIC NOTICE (If applicable) (continued)</b>		
B. Application in Public Place:		
Name of Public Place:		
Physical Address:		
City:	County:	
C. Small Business Classification:	<input type="checkbox"/> YES <input type="checkbox"/> NO	
D. Concrete batch plants with enhanced controls, permanent rock crushers, and animal carcass incinerators shall place a copy of the technically complete application at the appropriate TCEQ regional office only.		
E. Please furnish the names of the state legislators who represent the area where the facility site is located:		
State Senator:	State Representative:	
F. For Concrete Batch Plants, name of the County Judge for this facility site:		
County Judge:		
Mailing Address:		
City:	State:	Zip Code:
G. For Concrete Batch Plants, is the facility located in a municipality and/or extraterritorial jurisdiction of a municipality?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
If "YES," list the name(s) of the Presiding Officer(s) for the municipality and/or extraterritorial jurisdiction:		
Mailing Address:		
City:	State:	Zip Code:
<b>V. TECHNICAL INFORMATION INCLUDING STATE AND FEDERAL REGULATORY REQUIREMENTS</b>		
<i>Registrants must be in compliance with all applicable state and federal regulations and standards to claim a Standard Permit.</i>		
A. Is confidential information submitted and properly marked with this registration?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
B. Is a process flow diagram and a process description attached?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
C. Is a plot plan attached?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
D. Are emissions data and calculations for this claim attached?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
E. Is information attached showing how the <b>general</b> requirements and <b>applicability</b> (30 TAC § 116.610 and 116.615) are met?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
F. Is information attached showing how the <b>specific</b> requirements are met?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	





**Texas Commission on Environmental Quality**  
**Registration for Air Standard Permit**  
**Form PI-1S**

**V. SIGNATURE REQUIREMENTS**

The signature below indicates that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project for which application is made will not in any way violate any provision of the Texas Water Code (TWC), Chapter 7, Texas Clean Air Act (TCAA), as amended, or any of the air quality rules and regulations of the Texas Commission on Environmental Quality or any local governmental ordinance or resolution enacted pursuant to the TCAA. I further state that I have read and understand TWC §§ 7.177-7.183, which defines CRIMINAL OFFENSES for certain violations, including intentionally or knowingly making or causing to be made false material statements or representations in this application, and TWC §§ 7.187, pertaining to CRIMINAL PENALTIES.

PRINT NAME: David Fuelleman

SIGNATURE: [Signature]

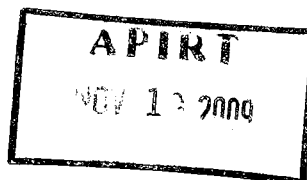
DATE: 18-Mar-2009

NOTE: ORIGINAL SIGNATURE IN INK IS REQUIRED

**VI. COPIES OF THE REGISTRATION**

Copies **must** be sent as listed below. Processing delays will occur if copies are not sent as noted.

Air Permits Initial Review Team (APIRT)	<b>Regular, Certified, Priority Mail</b> MC 161, P.O. Box 13087, Austin, Texas 78711-3087 <b>Hand Delivery, Overnight Mail</b> MC 161, 12100 Park 35 Circle, Building C, Third Floor, Austin, Texas 78753 (512) 239-1250	Original Money Order or Check, a Copy of Form PI-1S and Core Data Form; all attachments
Revenue Section, TCEQ	<b>Regular, Certified, Priority Mail</b> MC 214, P.O. Box 13087, Austin, Texas 78711-3087 <b>Hand Delivery, Overnight Mail</b> MC 214, 12100 Park 35 Circle, Building A, Third Floor, Austin, Texas 78753 (512) 239-6260	Original Money Order or Check, a Copy of Form PI-1S and Core Data Form
Appropriate TCEQ Regional Office	To find your regional office address, go to the TCEQ Web site at <a href="http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/gi/gi-002.html">www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/gi/gi-002.html</a> , or call (512) 239-1250	Copy of Form PI-1S, Core Data Form, and all attachments
Appropriate Local Air Pollution Control Program(s)	To find your local air pollution control programs go to the TCEQ, APD Web site at <a href="http://www.tceq.state.tx.us/cgi-bin/permitting/air/tps-ost/localprograms/localprograms.pl">www.tceq.state.tx.us/cgi-bin/permitting/air/tps-ost/localprograms/localprograms.pl</a> , or call (512) 239-1250	Copy of Form PI-1S, Core Data Form, and all attachments





## ***GAF ELK MATERIALS CORPORATION***

2600 Singleton Boulevard, Dallas, TX 75212

Tel: 214-637-1060

November 18, 2009

Air Permits Initial Review Team (APIRT)  
Texas Commission on Environmental Quality  
12100 Park 35 Circle, Mail Code 161  
Building C, Third Floor  
Austin, TX 78753

**AIR PERMITS DIVISION**  
**NOV 19 2009**  
**RECEIVED**

*RE: Standard Permit Registration – Pollution Control Project  
Building Materials Corporation of America – Dallas Plant – Dallas County  
TCEQ Account No. DB-0378-S, CN 602717464, RN 100788959*

To Whom It May Concern:

Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) owns and operates an asphalt roofing production facility located in Dallas, Texas (Dallas Plant).

With this letter GAF is submitting a Pollution Control Project Standard Permit registration. With this registration GAF is proposing to install two (2) new baghouses to control the particulate emissions from the Line 3 filler (stabilizer) transfer operations (proposed Emission Point Numbers [EPN] NST1 and NST2). The proposed voluntary pollution control project will meet all of the requirements under Title 30 of the Texas Administrative Code (30 TAC) Chapter 116, Section 617.

A check payable to the Texas Commission on Environmental Quality (TCEQ) in the amount of \$900.00 for the Standard Permit registration has been remitted directly to the TCEQ Revenue Section.

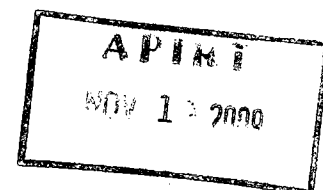
If you have any questions regarding this Standard permit registration fee, please feel free to call me at (214) 637-8909 or Ms. Christine Chambers of Trinity Consultants at (972) 661-8100.

Sincerely,

Doug Harris  
Engineering Manager

Attachments

cc: Mr. Tony Walker, TCEQ Regional Office 4  
Mr. David Miller, City of Dallas, Air Pollution Control Program  
Mr. David Fuelleman, GAF  
Mr. Fred Bright, GAF  
Ms. Christine M. Chambers, Trinity Consultants



**TCEQ AIR QUALITY STANDARD PERMIT REGISTRATION  
POLLUTION CONTROL PROJECT  
GAF MATERIALS CORPORATION ■ DALLAS PLANT**

---

**TCEQ ACCOUNT No. DB-0378-S  
TCEQ CUSTOMER NUMBER (CN) 602717464  
TCEQ REGULATED ENTITY NUMBER (RN) 100788959  
DALLAS COUNTY, TEXAS**

**Prepared by:**

**GAF MATERIALS CORPORATION**

2600 Singleton Blvd.  
Dallas, Texas 75212  
(214) 637-1060

**TRINITY CONSULTANTS**

12770 Merit Dr.  
Suite 900  
Dallas, Texas 75251  
(972) 661-8100

Doug Harris ■ Engineering Manager

Christine M. Otto Chambers ■ Managing Consultant  
Latha Kambham, Ph.D. ■ Consultant

November 2009

Project 094401.0093



**Trinity  
Consultants**



## TABLE OF CONTENTS

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EXECUTIVE SUMMARY .....	1
TCEQ FORM PI-1S AND CHECKLIST .....	2
ITEM III. FEE INFORMATION .....	III - 1
ITEM V.B. PROCESS DESCRIPTION AND PROCESS FLOW DIAGRAM.....	V.B - 1
ITEM V.C. PLOT PLAN.....	V.C - 1
ITEM V.D. EMISSIONS DATA .....	V.D - 1
ITEM V.E. GENERAL REQUIREMENTS .....	V.E - 1
30 TAC §116.610. APPLICABILITY EFFECTIVE FEBRUARY 1, 2006 .....	V.E - 1
30 TAC §116.615. GENERAL CONDITIONS EFFECTIVE MARCH 15, 2007 .....	V.E - 3
ITEM V.F. SPECIFIC REQUIREMENTS .....	V.F - 1
30 TAC §116.617. STATE POLLUTION CONTROL PROJECT STANDARD PERMIT EFFECTIVE FEBRUARY 1, 2006 .....	V.F - 1
APPENDIX A. EMISSION CALCULATION SPREADSHEETS	

## EXECUTIVE SUMMARY

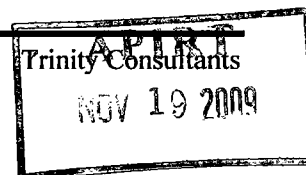
Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) owns and operates an existing asphalt roofing production facility located in Dallas, Texas (Dallas Plant). The Texas Commission on Environmental Quality (TCEQ) Account No. for the Dallas Plant is DB-0378-S. GAF operates under TCEQ Customer Reference Number (CN) 602717464 and the Dallas Plant operates under TCEQ Regulated Entity Reference Number (RN) 100788959. The Dallas Plant has been issued TCEQ Permit No. 7711A (air quality construction permit) for the existing roof shingle manufacturing plant and Standard Pollution Control Permit No. 81652 for two Coalescing Filter Mist Elimination Systems, with additional support equipment authorized by Permit-by-Rule (PBR). GAF submitted a NSR permit amendment application in December 2008, which is in final review at the TCEQ. In this application, GAF requested that all existing PBR sources and Standard Permit No. 81652 be rolled into the NSR Permit. The draft permit issued by TCEQ does incorporate this request.

Dallas County is currently an attainment or unclassified area for all criteria pollutants except the 8-hour ozone standard (0.08 parts per million [ppm]) for which it has been designated a moderate nonattainment area.<sup>1</sup> Dallas County also is expected to be designated nonattainment for the revised 8-hour ozone standard (75 parts per billion [ppb]). The Dallas Plant is an existing minor source with respect to Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR), but is a major source with respect to the federal operating permits program (Title V) due to potential emissions of particulate matter (PM) with an aerodynamic diameter of less than or equal to 10 microns (PM<sub>10</sub>).

GAF is proposing to install two (2) new baghouses to control the PM emissions from the Line 3 filler (stabilizer) transfer operations (proposed Emission Point Numbers [EPN] NST1 and NST2). Emissions of PM/PM<sub>10</sub>/PM<sub>2.5</sub> (particulate matter with an aerodynamic diameter of less than or equal to 2.5 microns (PM<sub>2.5</sub>)) are the only emissions expected as a result of the proposed project. A detailed process description is provided in Item V.B. The proposed installation of these new baghouses qualifies for a Standard Permit for a Pollution Control Project application, under Title 30, Texas Administrative Code (30 TAC), Section 116.617 – *State Pollution Control Project Standard Permit*.

This standard permit application contains a TCEQ Form PI-1S and all supporting documentation. A check for the standard permit application fee of \$900 was submitted under separate cover.

<sup>1</sup> The United States Protection Agency (U.S. EPA) Green Book. Source: <http://www.epa.gov/oar/oaqps/greenbk/anay.html>, accessed October 2009.



**TCEQ FORM PI-1S AND CHECKLIST**

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GAF Materials Corporation  
Dallas Facility

2







**Air Quality Standard Permits (SP)  
State Pollution Control Project Requirements Checklist  
Title 30 Texas Administrative Code § 116.617**

Check the most appropriate answer and include any additional information in the spaces provided. If additional space is needed, please include an extra page and reference the rule number. The SP forms, tables, checklists, and guidance documents are available from the TCEQ, Air Permits Division web site at: [www.tceq.state.tx.us/permitting/air/nav/standard.html](http://www.tceq.state.tx.us/permitting/air/nav/standard.html).

This Standard Permit requires registration with the commission's Office of Permitting, Remediation, and Registration in Austin. The facilities and/or changes to facilities can be registered by completing a **Form PI-1S**, "Registration for Air Standard Permit." This checklist should accompany the registration form.

<b>CHECK THE MOST APPROPRIATE ANSWERS AND FILL IN THE BLANKS</b>			
<b>Rule</b>	<b>Questions/Description</b>	<b>Information</b>	<b>Response</b>
116.617	Have you completed the Standard Permit General Requirements Checklist?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
116.617(d)(2)(C)	Please list all existing permits and registrations affected by this project and attach a description of how the standard permit will be administratively incorporated into the existing permit(s).	List all existing permits: Permit No. 7711A, Permit 0-2771	
116.617(a)(1) 116.617(b)(5)	Will this project reduce or maintain currently authorized emission rates for facilities authorized by a permit or standard permit?  <i>If "NO," are any increases solely due to the SP project?</i>		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO  <input type="checkbox"/> YES <input type="checkbox"/> NO
116.617(a)(3)(A)	Will this project include completely replacing or reconstructing an existing production facility?  <i>If "YES," you may not claim this standard permit.</i>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
116.617(a)(3)(C)	Will implementing this project serve to return a facility or group of facilities to compliance with an existing authorization or permit?  <i>If "YES," you cannot use this SP, you must amend the facility's original permit or authorization.</i>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
116.617(a)(1)	Is this pollution control project undertaken voluntarily?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
116.617(a)(1)	Is this pollution control project undertaken to meet a governmental standard?  <i>If "YES," list governmental standard:</i>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
116.617(d)(2)(D)	Will the project result in any changes to currently authorized emission rates?  <i>If "YES," attach documentation listing affected EPNs and rate changes.</i>		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO



**Air Quality Standard Permits (SP)  
State Pollution Control Project Requirements Checklist  
Title 30 Texas Administrative Code § 116.617**

<b>CHECK THE MOST APPROPRIATE ANSWERS AND FILL IN THE BLANKS</b>			
<b>Rule</b>	<b>Questions/Description</b>	<b>Information</b>	<b>Response</b>
116.617(a)(2) (A-B)	<p>Are you implementing or changing a method of control?</p> <p><i>If "YES," have you demonstrated equivalence or improvement in attached documentation?</i></p>		<p><input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO</p> <p><input type="checkbox"/> YES   <input type="checkbox"/> NO</p>
116.617(a)(2)(C)	<p>Are you substituting a compound in a manufacturing process?</p> <p><i>If "YES," have you demonstrated equivalence or improvement in attached documentation?</i></p>		<p><input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO</p> <p><input type="checkbox"/> YES   <input type="checkbox"/> NO</p>
116.617(b)(2)	<p>Will construction or implementation of the pollution control project begin within 18 months of receiving written acceptance of the registration from the executive director?</p>		<p><input checked="" type="checkbox"/> YES   <input type="checkbox"/> NO</p>
116.617(b)(4)	<p>Are predictable maintenance, startup, and shutdown emissions directly associated with the pollution control project included in this project?</p> <p><i>If "YES," attach documentation showing that MSS was authorized under the existing permit or authorization.</i></p>		<p><input checked="" type="checkbox"/> YES   <input type="checkbox"/> NO</p>
116.617(b)(5)	<p>Are all capacity increases solely due to the project as represented in the registration application?</p> <p><i>If "NO," you may not claim this standard permit.</i></p>		<p><input checked="" type="checkbox"/> YES   <input type="checkbox"/> NO</p>
116.617(c)(1-3)	<p>Are you replacing emissions control equipment (like-kind replacements or upgrades)?</p> <p><i>If "NO," skip to next question.</i></p> <p><i>If "YES," have you demonstrated equivalence or improvement in attached documentation?</i></p> <p>Will current testing and record keeping requirements be appropriate for the new control equipment or technique?</p> <p><i>If "NO," have you attached details of any proposed changes?</i></p>		<p><input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO</p> <p><input type="checkbox"/> YES   <input type="checkbox"/> NO</p> <p><input type="checkbox"/> YES   <input type="checkbox"/> NO</p> <p><input type="checkbox"/> YES   <input type="checkbox"/> NO</p>

### **ITEM III. FEE INFORMATION**

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In accordance with 30 TAC §116.614, a standard permit fee of \$900 was submitted to the TCEQ. The original check was mailed to the TCEQ Revenue Section under separate cover. A copy of the check is provided on the following page for reference purposes.

## **ITEM V.B. PROCESS DESCRIPTION AND PROCESS FLOW DIAGRAM**

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GAF is a nationwide manufacturer of building material products. The GAF Dallas Plant manufactures asphalt shingles for the roofing industry. There are two asphalt roofing lines at the GAF Dallas Plant: Line 1 and Line 3. With this project, GAF proposes changes to the stabilizer transfer operations in Line 3 by adding two baghouses as discussed in more detail below.

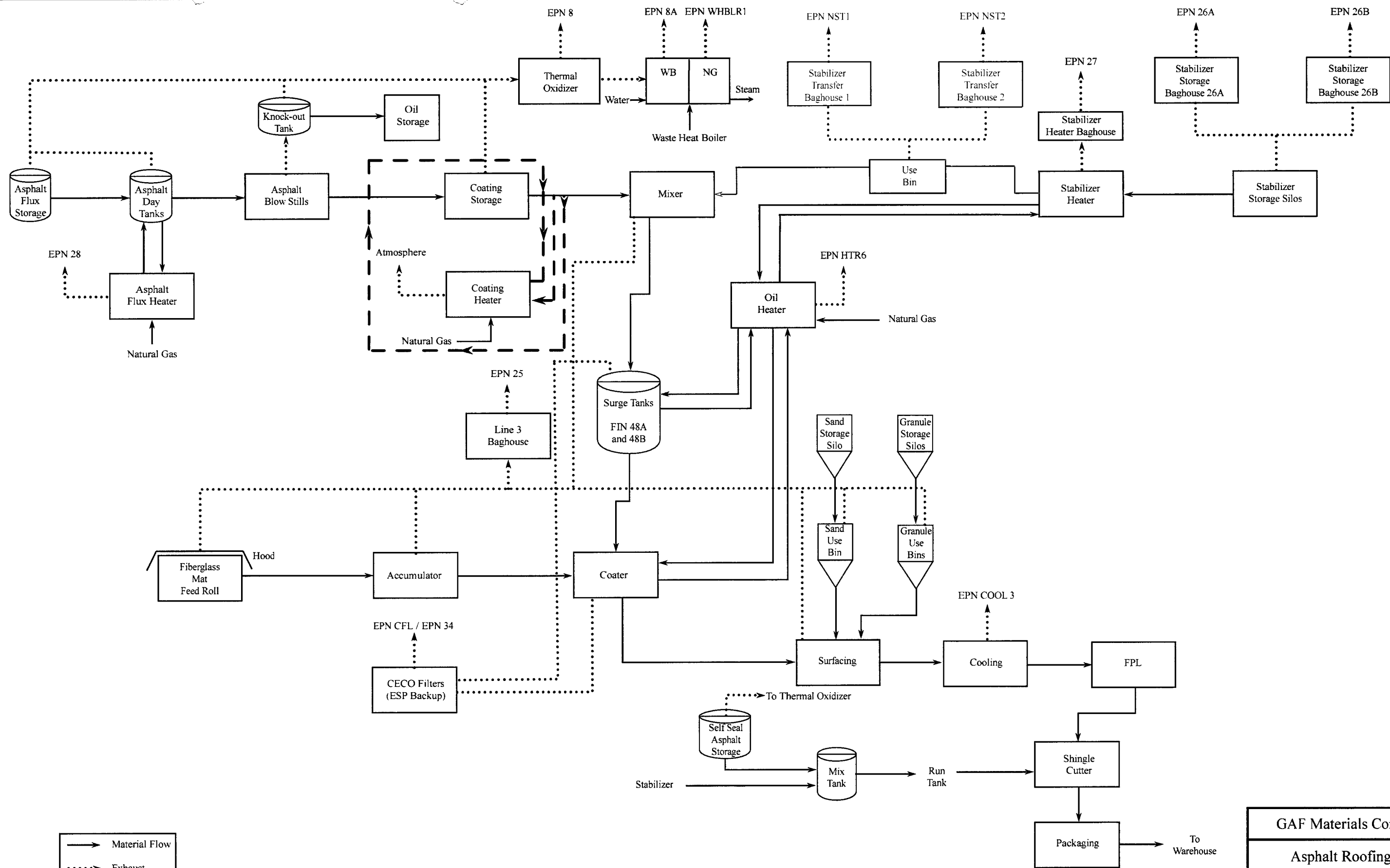
Stabilizer is received in bulk by truck or railcar and is unloaded into storage silos. Air emissions from the stabilizer storage silos are vented to two dust collectors (EPNs 26A and 26B). The ducting from the two stabilizer storage silos is interconnected. Therefore, both dust collectors control emissions from both stabilizer storage silos.

Stabilizer in the stabilizer storage silos is conveyed into a stabilizer heater. Air emissions from the stabilizer heater are routed to a dust collector (EPN 27). Currently, after heating, the stabilizer is conveyed to a mixer where it is mixed with blown coating asphalt. With this project, GAF proposes to enclose the stabilizer carrying operations in a use bin and control the air emissions with two (2) new baghouses (EPNs NST1 and NST2) prior to transferring the heated stabilizer to the mixer.

A process flow diagram for the Line 3 asphalt coater is included in this Section. The proposed changes are marked in red color.

**ITEM V.C. PLOT PLAN**

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GAF Materials Corporation

Asphalt Roofing Line 3  
Process Flow Diagram

Trinity  
Consultants

November 2009  
094401.0093

**FIGURE 1. LOCATION OF PROPERTY LINE, BUILDING STRUCTURES, AND EMISSION SOURCES FOR THE GAF DALLAS PLANT**

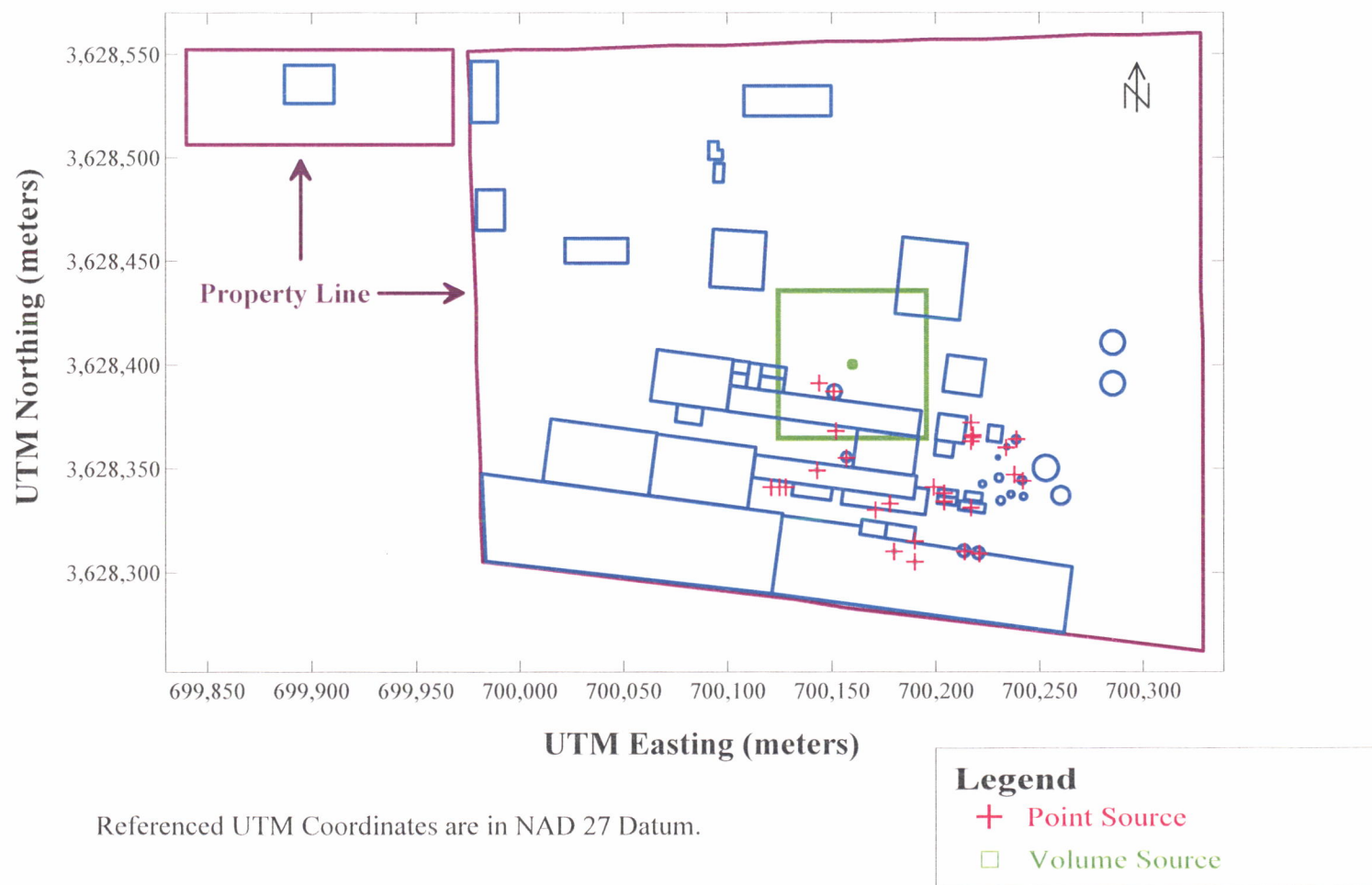
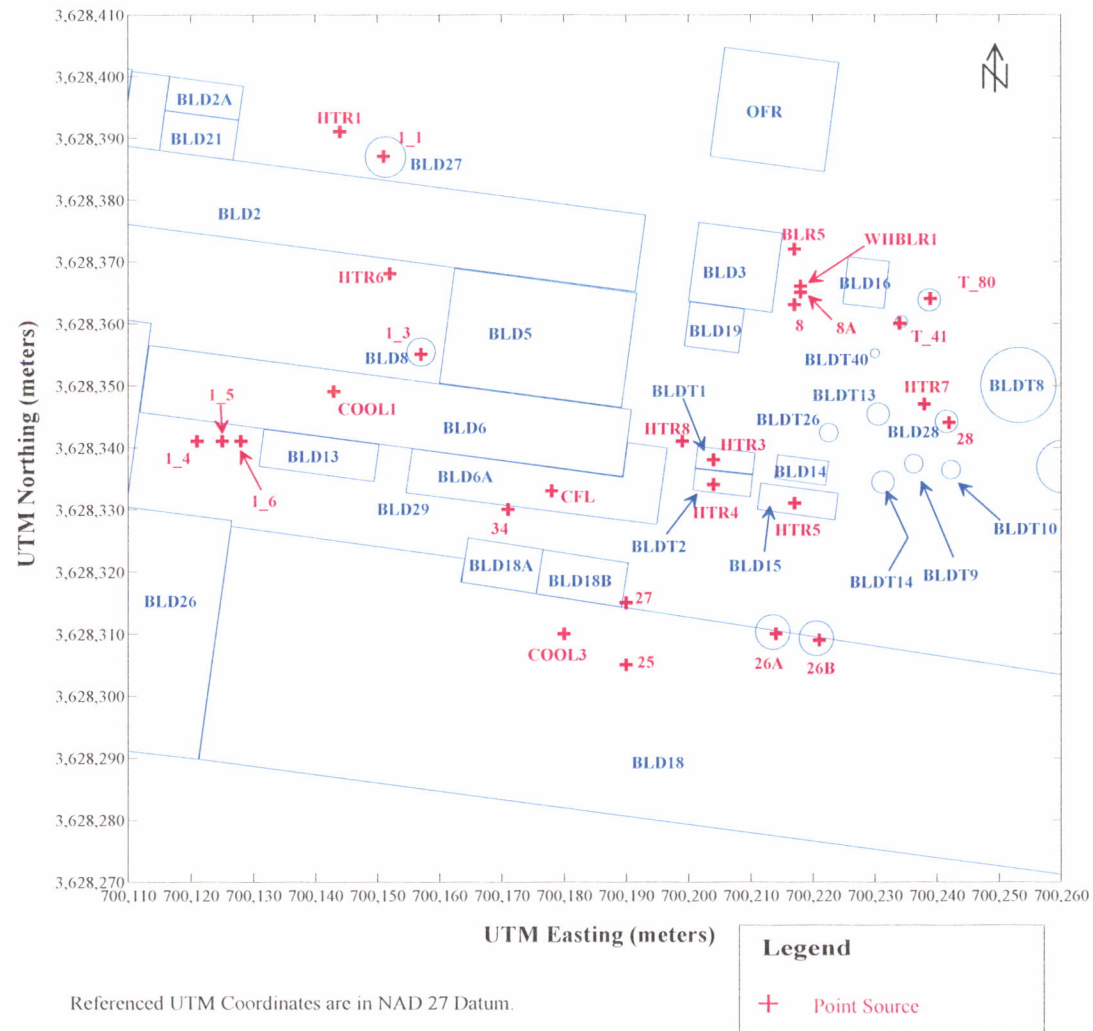


FIGURE 2. LOCATION AND IDS OF BUILDING STRUCTURES FOR THE GAF DALLAS PLANT





**FIGURE 3. LOCATION AND EPNS OF POINT SOURCES FOR THE GAF DALLAS PLANT**



## ITEM V.D. EMISSIONS DATA

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This section provides the emissions data required by the TCEQ PI-1S. The proposed voluntary pollution control project will not result in an increase in the production capacity. GAF is proposing to install two (2) new baghouses to control the PM emissions from the filler transfer operations.

Currently, PM emissions from the filler transfer operations are permitted via NSR Permit No. 7711A under Plant-wide Fugitive Emissions (EPN FUG1). A specific emission rate for fugitives from the filler transfer operations was not included in the historic permitting documentation since the emissions for EPN FUG1 were based on site-wide operations. In order to calculate the potential emissions attributable to the filler transfer operations of EPN FUG1, the drop equation provided in AP-42 Chapter 13.2.4, *Aggregate Handling and Storage Piles* (November 2006) is utilized. Uncontrolled potential fugitive emissions from the filler transfer operations are calculated based on the filler throughput (hourly and annual) and the emission factor determined by using the drop equation. These emissions represent the potential emissions decrease from EPN FUG1 resulting from the installation of the two baghouses.

Emissions of PM, PM<sub>10</sub>, and PM<sub>2.5</sub> from the proposed new baghouses are determined based on the following:

- Maximum exhaust flow rate in actual cubic feet per minute (acfm)
- An outlet grain loading of 0.01 grains per standard cubic feet (gr/scf)

It is conservatively assumed that emissions of PM<sub>10</sub> and PM<sub>2.5</sub> are equal to emissions of PM. Annual PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions are calculated based on the above parameters and the annual hours of operation for each baghouse.

The proposed installation of the two new baghouses will result in a decrease in actual emissions at the GAF Dallas Plant. Please note, the potential emissions estimated from the new baghouses are greater than the potential decrease in emissions estimated from EPN FUG1 due to the variation in emission calculation methodologies. Detailed emissions calculations and examples are provided in Appendix A.

As part of maintenance activities, GAF will periodically inspect the baghouses to ensure the baghouses are operating properly. GAF expects to replace each bag annually with a new bag. The used bags will be disposed of properly. During maintenance activities, the stabilizer transfer operations will be shutdown so that no emissions will be released from any of the proposed baghouses (EPNs NST1 and NST2). As a result, GAF does not anticipate any air emissions due to routine maintenance operations from the proposed new baghouses. Emissions from startup and shutdown operations will be the same as normal operation. ✓

D' 972419 5609

The proposed short-term and long-term emission rates associated with the proposed new baghouses are shown in Table A-1 included in Appendix A. The proposed decrease in emissions rate from EPN FUG1 are shown in Table A-2.

## ITEM V.E. GENERAL REQUIREMENTS

---

This section provides a summary demonstration that the proposed pollution control project at GAF will meet all requirements of 30 TAC §116.610 and §116.615.

### **30 TAC §116.610. APPLICABILITY EFFECTIVE FEBRUARY 1, 2006**

- (a) Under the Texas Clean Air Act, §382.051, a project that meets the requirements for a standard permit listed in this subchapter or issued by the commission is hereby entitled to the standard permit, provided the following conditions listed in this section are met. For the purposes of this subchapter, project means the construction or modification of a facility or a group of facilities submitted under the same registration.

- (1) Any project which results in a net increase in emissions of air contaminants from the project other than carbon dioxide, water, nitrogen, methane, ethane, hydrogen, oxygen, or those for which a national ambient air quality standard has been established must meet the emission limitations of §106.261 of this title (relating to Facilities (Emission Limitations), unless otherwise specified by a particular standard permit.

*The emissions limitations of 30 TAC §106.261 do not apply to the proposed pollution control project pursuant to 30 TAC §116.617(b)(3).*

- (2) Construction or operation of the project must be commenced prior to the effective date of a revision to this subchapter under which the project would no longer meet the requirements for a standard permit.

*Construction and operation of the proposed pollution control project will be commenced prior to the effective date of a revision to this subchapter so that the requirements for the standard permit are met.*

- (3) The proposed project must comply with the applicable provisions of the Federal Clean Air Act, §111 (concerning New Source Performance Standards) as listed under 40 Code of Federal Regulations (CFR) Part 60, promulgated by the United States Environmental Protection Agency (EPA).

*The GAF Dallas Plant's Line 3 is applicable to NSPS UU Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. However, the stabilizer transfer operations from the proposed project are not affected facilities under NSPS Subpart UU and the proposed project does not result in new or increased emissions.*

*of an air pollutant from a source to which a standard in NSPS Subpart UU applies. Therefore, the proposed project is not subject to NSPS.*

- (4) The proposed project must comply with the applicable provisions of FCAA, §112 (concerning Hazardous Air Pollutants) as listed under 40 CFR 61, promulgated by the EPA.

*The GAF Dallas Plant is a minor source of hazardous air pollutants. The proposed project is not subject to any National Emission Standard for Hazardous Air Pollutants (NESHAP) codified in 40 CFR 61.*

- (5) The proposed project must comply with the applicable maximum achievable control technology standards as listed under 40 CFR Part 63, promulgated by the EPA under FCAA, §112 or as listed under Chapter 113, Subchapter C of this title (relating to National Emissions Standards for Hazardous Air Pollutants for Source Categories (FCAA §112, 40 CFR 63)).

*The GAF Dallas Plant is a minor source of hazardous air pollutants. The proposed pollution control project is not subject to any NESHAP codified in 40 CFR 63.*

- (6) If subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program) the proposed facility, group of facilities, or account must obtain allocations to operate.

*The Dallas Plant is located in Dallas County, which is not subject to 30 TAC Chapter 101, Subchapter H, Division 3. Therefore, this requirement does not apply.*

- (b) Any project that constitutes a new major stationary source or major modification as defined in §116.12 of this title (relating to Nonattainment and Prevention of Significant Deterioration Review Definitions) is subject to the requirements of §116.110 of this title (relating to Applicability) rather than this subchapter.

*The proposed pollution control project does not constitute a new major stationary source or major modification as defined in §116.12. Therefore, this project is not subject to the requirements of 30 TAC §116.110.*

- (c) Persons may not circumvent by artificial limitations the requirements of §116.110 of this title.

*Artificial limitations have not been used to circumvent the requirements of §116.110.*

- (d) Any project involving a proposed affected source (as defined in §116.15(1) of this title (relating to Section 112(g) Definitions)) shall comply with all applicable requirements under

Subchapter E of this chapter (relating to Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources (FCAA, §112(g), 40 CFR Part 63)). Affected sources subject to Subchapter E of this chapter may use a standard permit under this subchapter only if the terms and conditions of the specific standard permit meet the requirements of Subchapter E of this chapter.

*The proposed pollution control project does not have the potential to emit 10 tpy of any hazardous air pollutant (HAP) or 25 tpy of any combination of HAPs. Therefore, the requirements of Subchapter E of 30 TAC 116 are not applicable to this project.*

### **30 TAC §116.615. GENERAL CONDITIONS EFFECTIVE MARCH 15, 2007**

The following general conditions are applicable to holders of standard permits, but will not necessarily be specifically stated within the standard permit document.

- (1) Protection of public health and welfare. The emissions from the facility, including dockside vessel emissions, must comply with all applicable rules and regulations of the commission adopted under Texas Health and Safety Code, Chapter 382, and with the intent of the Texas Clean Air Act (TCAA), including protection of health and property of the public.

*This project represents a voluntary pollution control project that will potentially lower actual emissions from the stabilizer carrying operations in Line 3 and potential Plant-wide Fugitive Emissions (EPN FUG1) authorized via NSR Permit No. 7711A. This standard permit registration documents that the proposed project will comply with the rules and regulations of the TCEQ and the intent of the TCAA, including protection of health and property of the public.*

- (2) Standard permit representations. All representations with regard to construction plans, operating procedures, and maximum emission rates in any registration for a standard permit become conditions upon which the facility or changes thereto, must be constructed and operated. It is unlawful for any person to vary from such representations if the change will affect that person's right to claim a standard permit under this section. Any change in condition such that a person is no longer eligible to claim a standard permit under this section requires proper authorization under §116.110 of this title (relating to Applicability). If the facility remains eligible for a standard permit, the owner or operator of the facility shall notify the executive director of any change in conditions which will result in a change in the method of control of emissions, a change in the character of the emissions, or an increase in the discharge of the various emissions as compared to the representations in the original registration or any previous notification of a change in representations. Notice of changes in representations must be received by the executive director no later than 30 days after the change.

*GAF understands that standard permit representations become conditions upon which the facility must be operated. Any changes to the representations in this application will be communicated to the TCEQ.*

- (3) Standard permit in lieu of permit amendment. All changes authorized by standard permit to a facility previously permitted under §116.110 of this title shall be administratively incorporated into that facility's permit at such time as the permit is amended or renewed.

*GAF will provide information sufficient to incorporate this Standard Permit into TCEQ Permit No. 7711A at the time of renewal or amendment.*

- (4) Construction progress. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office not later than 15 working days after occurrence of the event, except where a different time period is specified for a particular standard permit.

*GAF will notify the appropriate TCEQ Regional Office of construction progress as required.*

- (5) Start-up notification.
- (A) The appropriate air program regional office of the commission and any other air pollution control program having jurisdiction shall be notified prior to the commencement of operations of the facilities authorized by a standard permit in such a manner that a representative of the executive director may be present.
- (B) For phased construction, which may involve a series of units commencing operations at different times, the owner or operator of the facility shall provide separate notification for the commencement of operations for each unit.
- (C) Prior to beginning operations of the facilities authorized by the permit, the permit holder shall identify to the Office of Permitting, Remediation, and Registration the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program).
- (D) A particular standard permit may modify start-up notification requirements.

*GAF will provide start-up notification as required by the Standard Permit.*

- (6) Sampling requirements. If sampling of stacks or process vents is required, the standard permit holder shall contact the commission's appropriate regional office and any other air pollution control agency having jurisdiction prior to sampling to obtain the proper data forms and

procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The standard permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant.

*If stack sampling is required by the Executive Director, GAF will comply with these stack sampling requirements.*

- (7) Equivalency of methods. The standard permit holder shall demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the standard permit. Alternative methods must be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the standard permit.

*GAF is not requesting any alternatives to emissions control methods, sampling or other emission testing methods, and monitoring methods indicated in the conditions of the standard permit. GAF understands that if changes are proposed, equivalency of methods will be required.*

- (8) Recordkeeping. A copy of the standard permit along with information and data sufficient to demonstrate applicability of and compliance with the standard permit shall be maintained in a file at the plant site and made available at the request of representatives of the executive director, the United States Environmental Protection Agency, or any air pollution control agency having jurisdiction. For facilities that normally operate unattended, this information shall be maintained at the nearest staffed location within Texas specified by the standard permit holder in the standard permit registration. This information must include, but is not limited to, production records and operating hours. Additional recordkeeping requirements may be specified in the conditions of the standard permit. Information and data sufficient to demonstrate applicability of and compliance with the standard permit must be retained for at least two years following the date that the information or data is obtained. The copy of the standard permit must be maintained as a permanent record.

*GAF will maintain records as required by the Standard Permit and make them available to representatives of the executive director, the EPA, or any local pollution control program.*

- (9) Maintenance of emission control. The facilities covered by the standard permit may not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. Notification for emissions events and scheduled maintenance shall be made in accordance with §101.201 and §101.211 of this title (relating to Emissions Event Reporting and Recordkeeping



Requirements; and Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements).

*GAF will maintain the air pollution capture and abatement equipment for the facilities covered by this standard permit in good working order and will operate the air pollution capture and abatement equipment properly during normal facility operations. Notifications under 30 TAC § 101.201 and §101.211 will be made, as appropriate.*

- (10) Compliance with rules. Registration of a standard permit by a standard permit applicant constitutes an acknowledgment and agreement that the holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the claiming of the standard permit. If more than one state or federal rule or regulation or permit condition are applicable, the most stringent limit or condition shall govern. Acceptance includes consent to the entrance of commission employees and designated representatives of any air pollution control agency having jurisdiction into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the standard permit.

*GAF will comply will all rules, regulations, and orders of the commission.*

- (11) Distance limitations, setbacks, and buffer zones. Notwithstanding any requirement in any standard permit, if a standard permit for a facility requires a distance, setback, or buffer from other property or structures as a condition of the permit, the determination of whether the distance, setback, or buffer is satisfied shall be made on the basis of conditions existing at the earlier of:

(A) the date new construction, expansion, or modification of a facility begins; or

(B) the date any application or notice of intent is first filed with the commission to obtain approval for the construction or operation of the facility.

*The pollution control project standard permit in 30 TAC §116.617 for the proposed project does not require distance limits, setbacks, or buffer zones. Therefore, this condition does not apply.*

## ITEM V.F. SPECIFIC REQUIREMENTS

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This section provides a summary demonstration that the proposed pollution control project at the GAF Dallas Plant will meet all requirements of 30 TAC §116.617.

### **30 TAC §116.617. STATE POLLUTION CONTROL PROJECT STANDARD PERMIT EFFECTIVE FEBRUARY 1, 2006**

(a) Scope and applicability.

- (1) This standard permit applies to pollution control projects undertaken voluntarily or as required by any governmental standard, which reduce or maintain currently authorized emission rates for facilities authorized by a permit, standard permit, or permit by rule.

*GAF is voluntarily implementing this proposed pollution control project to control PM emissions from the Line 3 stabilizer transfer operations. The proposed project is expected to reduce or maintain currently authorized PM emission rates for previously authorized emissions.*

- (2) The project may include:
- (A) the installation or replacement of emissions control equipment;
  - (B) the implementation or change to control techniques; or
  - (C) the substitution of compounds used in manufacturing processes.

*This pollution control project proposes to install two baghouses.*

- (3) This standard permit must not be used to authorize the installation of emission control equipment or the implementation of a control technique that:

- (A) constitutes the complete replacement of an existing production facility or reconstruction of a production facility as defined in 40 Code of Federal Regulations §60.15(b)(1) and (c); or

*The proposed pollution control project does not include the installation of a new production facility, reconstruction of a production facility, or the complete replacement of an existing production facility.*

- (B) the executive director determines there are health effects concerns or the potential to exceed a national ambient air quality standard criteria pollutant or contaminant that results from an increase in emissions of any air contaminant until those

concerns are addressed by the registrant to the satisfaction of the executive director; or

*The installation of baghouses on the Line 3 stabilizer transfer operations will maintain or reduce PM emissions from the Line 3 stabilizer transfer operations and is not expected to increase authorized emissions of any other criteria pollutants. Therefore, there is no potential to exceed an ambient air quality standard as a result of the project.*

(C) returns a facility or group of facilities to compliance with an existing authorization or permit unless authorized by the executive director.

*The proposed project is not being initiated to bring a facility or group of facilities into compliance.*

- (4) Only new or modified pollution control projects must meet the conditions of this standard permit. All previous standard permit registrations under this section that were authorized prior to the effective date of this rule must include the increases and decreases in emissions resulting from those projects in any future netting calculation and all other conditions must be met upon the ten-year anniversary and renewal of the original registration, or until administratively incorporated into the facilities' permit, if applicable.

*The proposed project is a new pollution control project and meets the conditions of this standard permit.*

(b) General requirements.

- (1) Any claim under this standard permit must comply with all applicable conditions of:

(A) §116.604(1) and (2) of this title (relating to Duration and Renewal of Registrations to Use Standard Permits);

*GAF will comply with the renewal requirements in §116.604(1) and (2).*

(B) §116.605(d)(1) and (2) of this title (relating to Standard Permit Amendment and Revocation);

*GAF will comply with any amendments to the Standard Permit.*

(C) §116.610 of this title (relating to Applicability);

*GAF meets the conditions of §116.610 as shown in the previous Section of this application.*

(D) §116.611 of this title (relating to Registration to Use a Standard Permit);

*This document represents the registration to use a Standard Permit and contains all of the required elements set forth in §116.611.*

(E) §116.614 of this title (relating to Standard Permit Fees); and

*GAF has submitted the Standard Permit fee under separate cover. A copy of the check is included in this application.*

(F) §116.615 of this title (relating to General Conditions).

*GAF understands the conditions of §116.615 are General Conditions of the Standard Permit and will comply with the applicable requirements as shown in the previous Section of this application.*

- (2) Construction or implementation of the pollution control project must begin within 18 months of receiving written acceptance of the registration from the executive director, with one 18-month extension available, and must comply with §116.115(b)(2) and §116.120 of this title (relating to General and Special Conditions and Voiding of Permits). Any changes to allowable emission rates authorized by this section become effective when the project is complete and operation or implementation begins.

*GAF will begin construction and implementation of the pollution control project within 18 months of acceptance of this registration or will request an 18-month extension. In addition, GAF will comply with the Conditions of §116.115(b)(2) and §116.120.*

- (3) The emissions limitations of §116.610(a)(1) of this title do not apply to this standard permit.

*GAF understands that the requirements of 30 TAC §116.610(a)(1) are not applicable to this standard permit.*

- (4) Predictable maintenance, startup, and shutdown emissions directly associated with the pollution control projects must be included in the representations of the registration application.

*As discussed in Item V.D., GAF does not anticipate an increase in allowable emissions or change in the character of the emissions during startup or shutdown associated with the facilities directly related with the pollution control project. GAF does not anticipate any emissions from the facilities associated with this project during predictable maintenance activities since the operations will be shutdown during maintenance.*

- (5) Any increases in actual or allowable emission rates or any increase in production capacity authorized by this section (including increases associated with recovering lost production capacity) must occur solely as a result of the project as represented in the registration application. Any increases of production associated with a pollution control project must not be utilized until an additional authorization is obtained. This paragraph is not intended to limit the owner or operator's ability to recover lost capacity caused by a derate, which may be recovered and used without any additional authorization.

*GAF is proposing to install two new baghouses and anticipates the project will result in a reduction of actual emissions from the Line 3 stabilizer transfer operations and a reduction of Plant-wide Fugitive emissions currently authorized via NSR Permit No. 7711A. There will be no increases of production as a result of the proposed project.*

(c) Replacement projects.

- (1) The replacement of emissions control equipment or control technique under this standard permit is not limited to the method of control currently in place, provided that the control or technique is at least as effective as the current authorized method and all other requirements of this standard permit are met.
- (2) The maintenance, startup, and shutdown emissions may be increased above currently authorized levels if the increase is necessary to implement the replacement project and maintenance, startup, and shutdown emissions were authorized for the existing control equipment or technique.
- (3) Equipment installed under this section is subject to all applicable testing and recordkeeping requirements of the original control authorization. Alternate, equivalent monitoring, or records may be proposed by the applicant for review and approval of the executive director.

*GAF is not proposing to replace emission control equipment or techniques.*

(d) Registration requirements.

- (1) A registration must be submitted in accordance with the following.

(A) If there are no increases in authorized emissions of any air contaminant resulting from a replacement pollution control project, a registration must be submitted no later than 30 days after construction or implementation begins and the registration must be accompanied by a \$900 fee.

*GAF is not proposing to replace emission control equipment or techniques; therefore this paragraph does not apply.*

(B) If a new control device or technique is authorized or if there are increases in authorized emissions of any air contaminant resulting from the pollution control project, a registration must be submitted no later than 30 days prior to construction or implementation. The registration must be accompanied by a \$900 fee. Construction or implementation may begin only after:

- (i) no written response has been received from the executive director within 30 calendar days of receipt by the Texas Commission on Environmental Quality (TCEQ); or
- (ii) written acceptance of the pollution control project has been issued by the executive director.

*This registration and fee for a new pollution control project are being submitted at least 30 days prior to construction and implementation of the pollution control project. GAF understands that construction of the proposed pollution control project is authorized to commence after written approval notification is received from the TCEQ, or 30 days after the TCEQ receives a registration submittal, if GAF is not informed of any objections.*

(C) If there are any changes in representations to a previously authorized pollution control project standard permit for which there are no increases in authorized emissions of any air contaminant, a notification or letter must be submitted no later than 30 days after construction or implementation of the change begins. No fee applies and no response will be sent from the executive director.

*GAF will submit a notification letter to the TCEQ within 30 days if changes to the pollution control project are required and do not result in an increase in air emissions.*

(D) If there are any changes in representations to a previously authorized pollution control project standard permit that also increase authorized emissions of any air contaminant resulting from the pollution control project, a registration alteration must be submitted no later than 30 days prior to the start of construction or

implementation of the change. The registration must be accompanied by a \$450 fee, unless received within 180 days of the original registration approval.

Construction or implementation may begin only after:

- (i) no written response has been received from the executive director within 30 calendar days of receipt by the TCEQ; or
- (ii) written acceptance of the pollution control project has been issued by the executive director.

*GAF will submit a registration alteration, and \$450 fee, if applicable, to the TCEQ 30 days prior to a change in the pollution control project that results in an increase in air emissions. GAF understands that construction of the change to the proposed pollution control project is authorized to commence after written approval notification is received from the TCEQ, or 30 days after the TCEQ receives the registration alteration, if GAF is not informed of any objections.*

(2) The registration must include the following:

- (A) a description of process units affected by the project;
- (B) a description of the project;
- (C) identification of existing permits or registrations affected by the project;
- (D) quantification and basis of increases and/or decreases associated with the project, including identification of affected existing or proposed emission points, all air contaminants, and hourly and annual emissions rates;
- (E) a description of proposed monitoring and recordkeeping that will demonstrate that the project decreases or maintains emission rates as represented; and
- (F) a description of how the standard permit will be administratively incorporated into the existing permit(s).

*This registration application contains the required information, as indicated above.*

(e) Operational requirements. Upon installation of the pollution control project, the owner or operator shall comply with the requirements of paragraphs (1) and (2) of this subsection.

- (1) General duty. The owner or operator must operate the pollution control project in a manner consistent with good industry and engineering practices and in such a way as to minimize emissions of collateral pollutants, within the physical configuration and operational standards usually associated with the emissions control device, strategy, or technique.

*GAF will operate the pollution control project in accordance with good industry and engineering practice in order to minimize the emissions of collateral pollutants.*

- (2) Recordkeeping. The owner or operator must maintain copies on site of monitoring or other emission records to prove that the pollution control project is operated consistent with the requirements in paragraph (1) of this subsection, and the conditions of this standard permit.

*GAF will maintain records of any monitoring conducted to demonstrate that the pollution control project is operated in a manner consistent with good industry practices and in a way that tries to minimize emissions of collateral pollutants. In addition, the plant will maintain records to demonstrate compliance with this Standard Permit.*

- (f) Incorporation of the standard permit into the facility authorization.

- (1) Any new facilities or changes in method of control or technique authorized by this standard permit instead of a permit amendment under §116.110 of this title (relating to Applicability) at a previously permitted or standard permitted facility must be incorporated into that facility's permit when the permit is amended or renewed.

*GAF will incorporate this Standard Permit into NSR Permit No. 7711A at amendment or renewal as directed by the TCEQ.*

- (2) All increases in previously authorized emissions, new facilities, or changes in method of control or technique authorized by this standard permit for facilities previously authorized by a permit by rule must comply with §106.4 of this title (relating to Requirements for Permitting by Rule), except §106.4(a)(1) of this title, and §106.8 of this title (relating to Recordkeeping).

*The emissions from this new pollution control project have not been previously authorized via permit by rule. Therefore, the provisions of §106.4 (relating to Requirements for Permitting by Rule) do not apply.*



## **APPENDIX A. EMISSION CALCULATIONS SPREADSHEETS**

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*After*

Table A-1. Maximum Potential Hourly and Annual Emissions for the Proposed Baghouses (EPNs: NST1 and NST2)

FIN No.	EPN No.	Description	Actual Flow Rate <sup>1</sup>	Grain Loading <sup>1</sup>	Actual Temperature <sup>1</sup>		Standard Temperature		Standard Flow Rate <sup>2</sup>	PM/PM <sub>10</sub> /PM <sub>2.5</sub> Emissions <sup>3</sup>	
			(acfm)	(gr/scf)	(°F)	(°R)	(°F)	(°R)	(dscfm)	(lb/hr)	(tpy) <sup>4</sup>
NST1	NST1	Baghouse 1 (Filler Transfer Operations) - L3	1,035	0.01	250	710	68	528	769.69	0.07	0.31
NST2	NST2	Baghouse 2 (Filler Transfer Operations) - L3	1,035	0.01	250	710	68	528	769.69	0.07	0.31
TOTAL =										0.14	0.62

<sup>1</sup> Baghouse details provided by Mr. Doug Harris (GAF) on 10/23/2009.

<sup>2</sup> Standard Flow Rate (dscfm) = Actual Flow Rate (acfm) \* Standard Temperature (°R) / Actual Exit Temperature (°R)

<sup>3</sup> It is conservatively assumed that emissions of PM<sub>10</sub> and PM<sub>2.5</sub> equal emissions of PM.

<sup>4</sup> PM/PM<sub>10</sub>/PM<sub>2.5</sub> Emissions (tpy) are based on maximum potential operating hours for the year = 8,760

Sample Emissions Calculations for PM/PM<sub>10</sub>/PM<sub>2.5</sub> from Baghouse 1 (Filler Transfer Operations) - L3 (EPN NST1)

$$\text{Standard Flow Rate (dscfm)} = \frac{1,035 \text{ acfm}}{710 \text{ deg R}} \times \frac{528 \text{ deg R}}{1} = 769.69 \text{ dscfm}$$

$$\text{PM}_{10} \text{ Emission Rate (lb/hr)} = \frac{769.69 \text{ dscfm}}{1 \text{ hr}} \times \frac{60 \text{ min}}{1 \text{ hr}} \times \frac{0.01 \text{ gr}}{1 \text{ scf}} \times \frac{1 \text{ lb}}{7,000 \text{ gr}} = 0.07 \text{ lb/hr}$$

$$\text{PM}_{10} \text{ Emission Rate (tpy)} = \frac{0.07 \text{ lb}}{1 \text{ hr}} \times \frac{8,760 \text{ hrs}}{1 \text{ yr}} \times \frac{1 \text{ ton}}{2,000 \text{ lbs}} = 0.31 \text{ tpy}$$

Before

Table A-2. Potential Decrease in Maximum Allowable Emission Rates for the Plant-wide Fugitive Emissions (EPN: FUG1)

FIN No.	EPN No.	Description	Particle Size Multiplier [k] <sup>1</sup>			Mean Wind Speed [U] <sup>2</sup>	Moisture Content [M] <sup>2</sup>	Emission Factor, EF <sup>1</sup>			Maximum Throughput <sup>3</sup>		Decrease in Hourly Emissions			Decrease in Annual Emissions		
								PM	PM <sub>10</sub>	PM <sub>2.5</sub>	Hourly	Annual	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
			PM	PM <sub>10</sub>	PM <sub>2.5</sub>	(mph)	(%)	(lb/ton)	(lb/ton)	(lb/ton)	(lb/hr)	(tpy)	(lb/hr)	(lb/hr)	(lb/hr)	(tpy)	(tpy)	(tpy)
FUG1	FUG1	Plant-Wide Fugitive Emissions (Filler Conveying Operations)	0.74	0.35	0.053	1.3	2.1	3.84E-04	1.82E-04	2.75E-05	43,120	146,609	0.01	0.004	0.001	0.03	0.01	0.002

<sup>1</sup> The emission factor equation and the k variables are obtained from AP-42 Section 13.2.4 (11/06), page 4.

$$EF = \frac{k(0.0032)(U/5)^{1.3}}{(M/2)^{1.4}} \quad \text{AP-42 13.2.4 Equation 1}$$

Where

E = Emission factor (lb PM/ton)

k = Particle size empirical constant

U = Mean Wind Speed

M = Material Moisture Content

<sup>2</sup> Wind speed and moisture content obtained from emission calculations for 2004 VERP Modeling Project.

<sup>3</sup> Maximum hourly and annual filler throughput provided by Mr. Doug Harris (GAF) via email to Ms. Latha Kambham (Trinity) on November 12, 2009.

#### Sample Emissions Calculations for PM

$$\text{PM Emission Rate (lb/hr)} = \frac{3.84\text{E-}04 \text{ lb}}{1 \text{ ton}} \times \frac{43,120 \text{ lb}}{1 \text{ hr}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 0.01 \text{ lb/hr}$$

$$\text{PM Emission Rate (tpy)} = \frac{3.84\text{E-}04 \text{ lb}}{1 \text{ ton}} \times \frac{146,609 \text{ tons}}{1 \text{ yr}} \times \frac{1 \text{ ton}}{2,000 \text{ lbs}} = 0.03 \text{ tpy}$$